

CLAIMS

1. A composite electrical collector, for use in transferring electricity to or from a conductor and to make sliding contact with the conductor, the collector comprising a metal mesh embedded in a tribologically acceptable matrix.
2. A composite electrical collector as claimed in Claim 1, in which the tribologically acceptable matrix is a carbon based material.
3. A composite electrical collector as claimed in Claim 2, in which the carbon based material is a coke/graphite/resin mix
4. A composite electrical collector as claimed in any one of Claims 1 to 3, in which the metal mesh is a copper mesh.
5. A composite electrical collector as claimed in any one of Claims 1 to 4, in which the metal mesh embedded in a tribologically acceptable matrix consists of a pressed laminated body of matrix material and metal mesh.
6. A composite electrical collector as claimed in any one of Claims 1 to 5, in which one or more non-metallic strengthening web layers are provided in addition to the metal mesh.
7. A composite electrical collector as claimed in Claim 6, in which the non-metallic strengthening web layers are distributed non-uniformly within the body of the collector.
8. A composite electrical collector as claimed in any one of Claims 1 to 7, in which the metal mesh comprises a plurality of metal meshes embedded in the tribologically acceptable matrix.
9. A composite electrical collector as claimed in Claim 8, in which the plurality of metal meshes are distributed non-uniformly within the body of the collector.
10. A composite electrical collector as claimed in any one of Claims 1 to 9, in which the metal mesh is disposed perpendicular to a conductor contacting face of the collector.

11. A method of making a composite electrical collector as claimed in any preceding claim in which layers of matrix material and metal mesh are pressed together to form a laminated structure.
12. A method, as claimed in Claim 11, in which the laminated structure is raised to an elevated temperature after or during pressing.
13. A method, as claimed in Claim 12, in which the laminated structure is kilned under an inert atmosphere.
14. A method, as claimed in any one of Claims 11 to 13, in which the laminated structure is impregnated after forming.
15. An electrically powered vehicle drawing current from a conductor by a collector as claimed in any one of Claims 1 to 10.